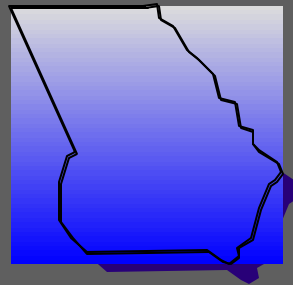


Total Maximum Daily Load TMDL

Department of Defense
Conference



Curry Jones, USEPA

Presentation Objectives

- ➡ To present factual information about TMDLs and how they fit into watershed management.
- ➡ To discuss how TMDLs fit into Department of Defense operations.



The Truth about TMDLs

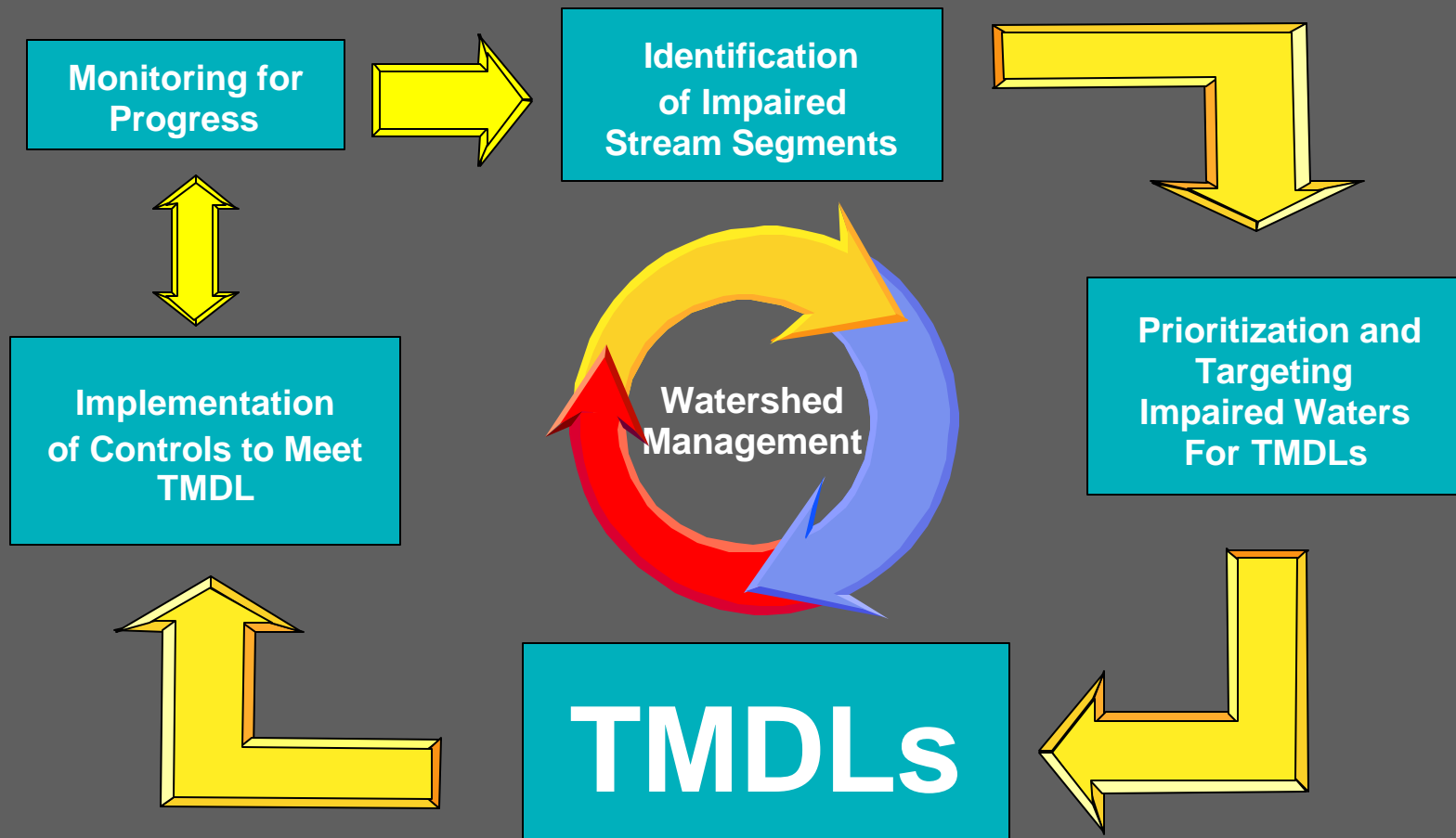
I Hate Them !

Too Many Dam Lawyers

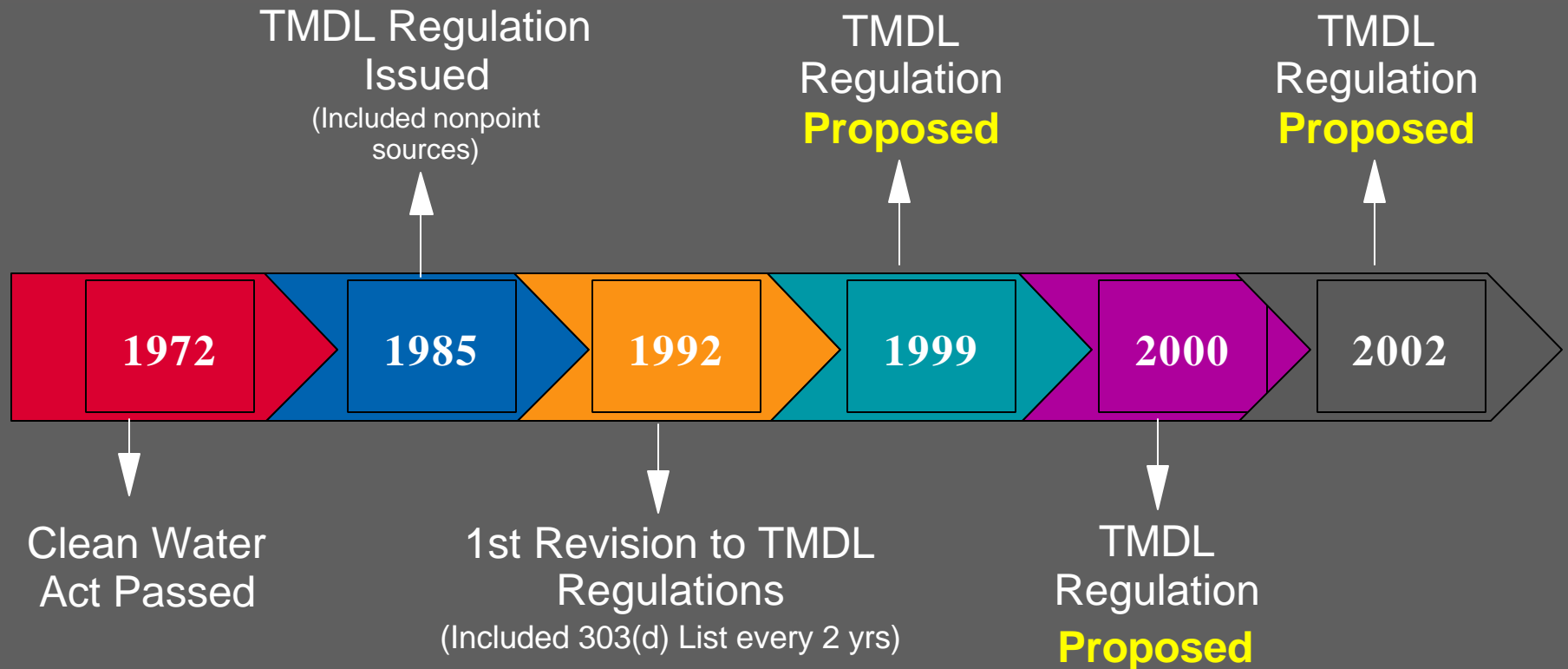
Meaningless Paper Work Exercise

Great Tool For Watershed
Management

Water Quality Management Planning Cycle



Regulatory History



§303(d) Clean Water Act Requires ...

⇒ States to:

- Identify waters not meeting State water quality standards -- §303(d) list
- Set priorities for TMDL development
- Develop a TMDL for each pollutant for each listed water

⇒ EPA Action Required:

- 30 days to review and approve or disapprove.

What Information is Used to Develop the 303(d) List ?

⇒ WQ Assessment Methodology:

- Tool developed by the state used to assess available data to determine if waterbody meets applicable water quality standards submitted at the same time as the list.

⇒ Data:

- States use "all existing and readily available water quality-related information"
- Monitored and evaluated data.

Scope of §303(d) List (Impaired Waters List)

⇒ Scope of State lists

- Includes waters impaired or threatened by pollutants
 - Waters needing TMDLs
 - Waters remain on the list until the TMDL is approved or established, or when water quality standards have been attained

⇒ 2-year listing cycle

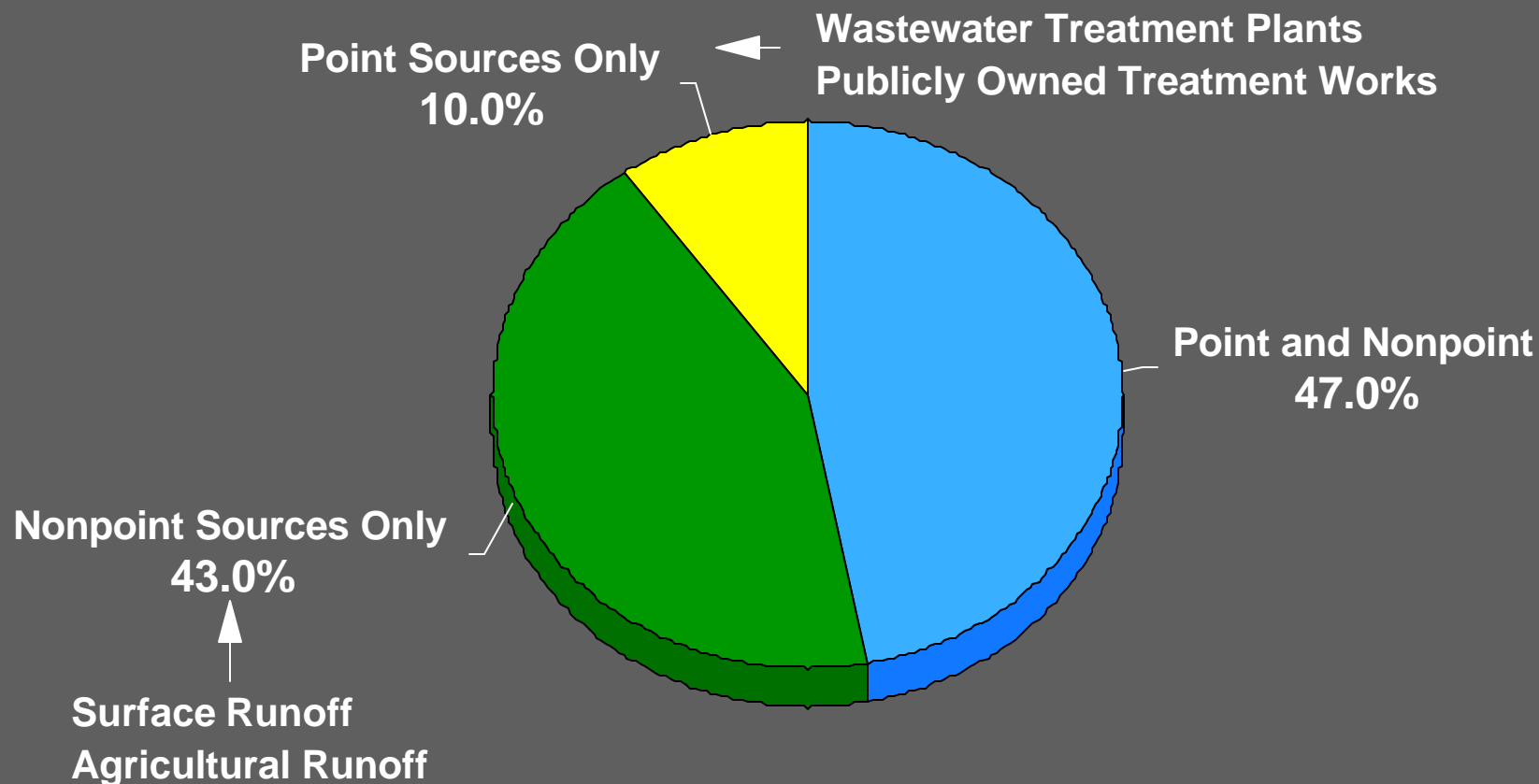
- Submitted to EPA on April 1 in every even numbered year

Prioritization and Targeting

⇒ State must also:

- **Prioritize 303(d) List for TMDL development based on:**
 - Severity of pollution;
 - Beneficial Uses of the waterbody of concern, and;
 - Pollutant of concern
- **Identify waters targeted for TMDL development within the next 2 years**

Sources of Impairment by Category from the 1998 303(d) List



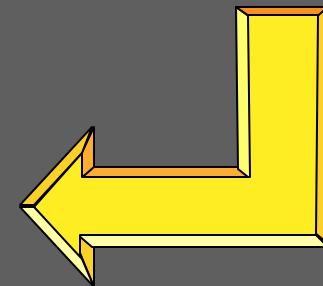
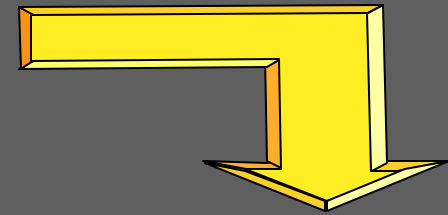
Georgia's §303(d) List (Impaired Waters List)

- ➡ More than 300 impaired waterways in the State of Georgia
- ➡ Pollutants associated with most DoD sites include:
 - Organics
 - Oil and Grease
 - Contaminated Sediment

Water Quality Management Planning Cycle



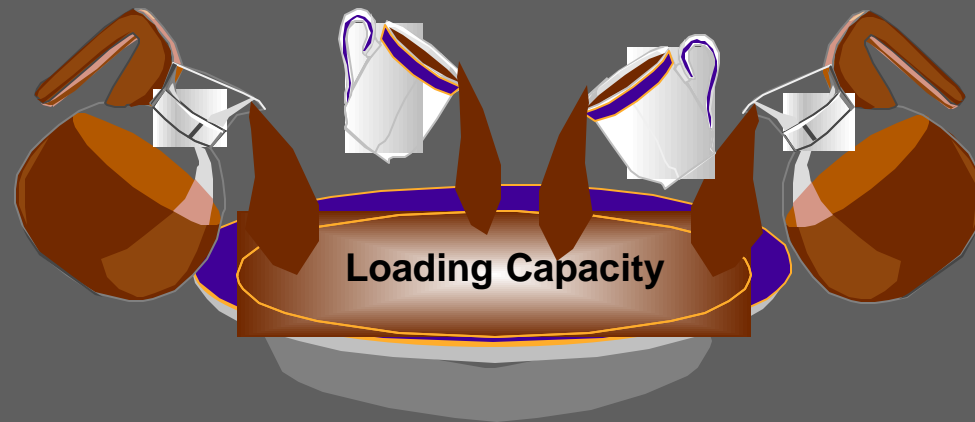
**TMDL
Development**



Total Maximum Daily Load

What is it ?

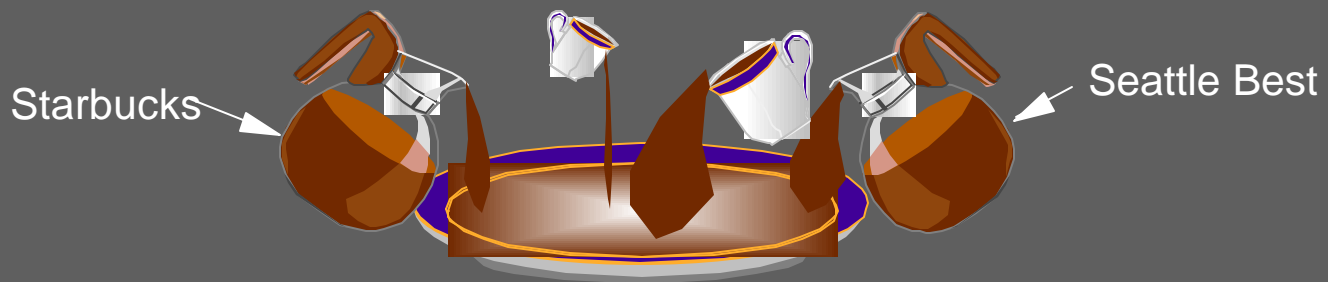
➡A water pollution control plan that determines the amount of a pollutant a waterbody (stream, river, creek, estuary) can receive and still meet water quality standards.



"Who much can I pour into the plate without going over !"

TMDL Objective

➡ ".....is to **assess pollutant sources** and **allocate allowable loads** among these sources so that the appropriate control actions can be taken to achieve compliance with water quality standards."



What do TMDLs Do ?

- ⇒ **Determine** the stream / rivers loading capacity.
- ⇒ **Identifies** watershed sources.
- ⇒ **Estimates / Predicts** pollutant loadings from watershed sources (current/future) .
- ⇒ **Allocates loads** reductions necessary to meet the loading capacity.



TMDLs

- ⇒ Are subject to public review
- ⇒ EPA actions on TMDLs
 - EPA has 30 days to review and approve or disapprove TMDLs
 - If EPA disapproves, it has 30 days to establish TMDLs.

Components of TMDLs

TMDL =

WLA + LA + MOS

Wasteload Allocation(s)

How is it Conveyed ?



Wasteload Allocation(s)

How is it Conveyed ?



Wasteload Allocation(s)

How is it Conveyed ?



Load Allocation(s)

How is it Conveyed ?



Load Allocation(s)

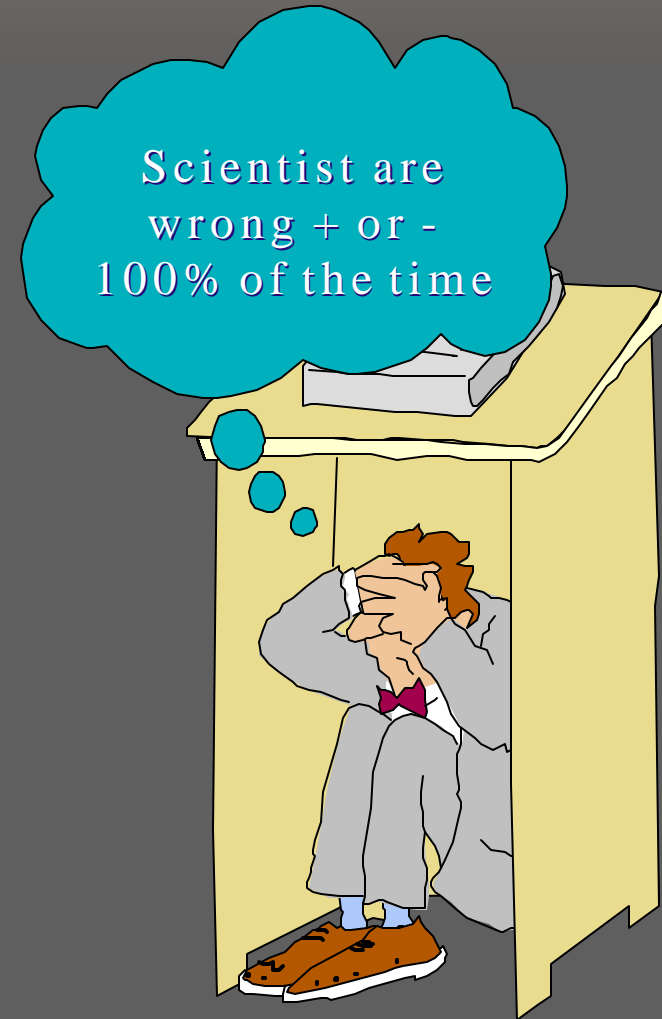
How is it Conveyed ?



NPS —————> PS

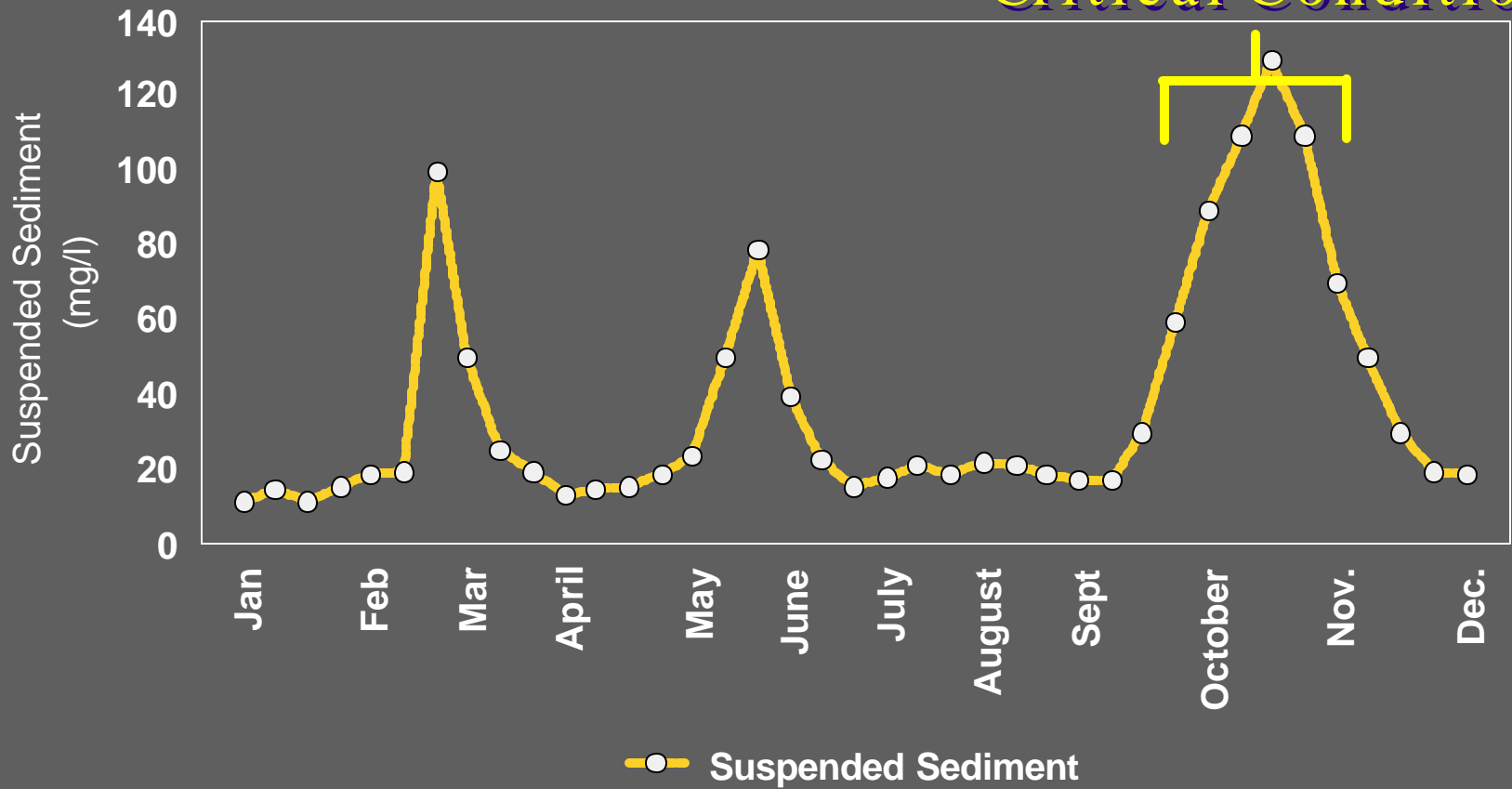
Margin of Safety

- Account for uncertainty and assumptions used in analysis
- Implicit or Explicit



Seasonal Variation

Critical Condition



What Should I Do To Get Ahead...

➡ More Emphasis on Pollution Prevention

- Contain and fix problems on site before problems arise.

➡ Source Identification

- Invest in environmental monitoring



For Further Information..

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EPA TMDL Website
www.epa.gov/owow/tmdl